



## An investigation of read speech of Arabic students learning Turkish as a second language in terms of stress and pause

Serdar Derman<sup>a</sup>, Mehmet Bardakçı<sup>b\*</sup>, Mustafa Serkan Öztürk<sup>c</sup>

<sup>a</sup>Gaziantep University, Gaziantep, 27310,Turkey

<sup>b</sup>Gaziantep University, Gaziantep, 27310, Turkey

<sup>b</sup>Necmettin Erbakan University, Konya, 42090, Turkey

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### Abstract

Suprasegmental features are essential in conveying meaning; however, they are one of the neglected topics in teaching Turkish as a foreign/second language. This paper aims to examine read speech by Arabic students learning Turkish as a second language and describe their read speech in terms of stress and pause. Within this framework, 34 Syrian students enrolled in Gaziantep University Turkish Teaching Application and Research Center (TÖMER) at B2 level were asked to read a text chosen from one of the books prepared in accordance with the European language portfolio B2 level. Voice recordings were analyzed using Praat and Cool Edit software programs. Students' stress and pause durations were compared and contrasted according to the criteria set by experts. The results showed that students' stress and pause patterns showed statistically significant deviations from those criteria.

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**Keywords:**Turkish as a foreign/second language; suprasegmentals; stress; pause

### 1. Introduction

English is the most popular language for people who learn a foreign language (FL); similarly, Turkish language also gradually gets its significant place in learning as a FL. During the last 30 years, language specialists studied on suprasegmentals instead of segmentals to enhance oral communication (Hismanoglu, 2012; Çelik, 2001; Avery & Ehrlich, 1992; Morley, 1991). For this respect, as the great number of Arabic population who learn Turkish as a second language (SL) is taken into consideration, it is needed to conduct research on suprasegmental features that have an important role to convey meaning within the reading and speaking a language context. To this end, the goal of this study is to investigate Arabic students' readings who learn Turkish as a SL focusing specifically on stress and pause with the framework of suprasegmental phonology (prosody). Finch (2000) defines suprasegmentals as "units above the segmental level of phonemes" (p. 39). Hudson (2000) states that suprasegmental qualities can be seen on over more than one phone. Özbay and Çetin(2011) also statethat suprasegmental features are linguistic sub-systems which have several functions such

\*Corresponding author. Tel.: +90-342-360-1200/3759  
E-mail address: mbardakci@gantep.edu.tr

as length, stress, intonation, pitch, pause and these terms are directly related to syllable, word and sentence.

### 1.1. Stress and Pause

Ladefoged (2006) explains stress as “a kind of suprasegmental feature of utterances”, and states that it cannot be found in individual vowels or consonants but in the whole syllables. If a syllable or a word is pronounced with higher pitch than other syllables or words, it can be said that it is stressed. Accordingly, the listeners can hear that stressed syllable in a word louder, stronger, and slightly higher than the rest or the unstressed ones.

To understand stress, one should consider both word and sentence stress. For the word stress, we shall distinguish two degrees of stress as shown below: primary stress is on 1 and secondary stress is on 2.

*categorical/k æ tə gɔ̄rɪk l/*

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Collins and Mees (2013, p.130)

In English, four phonetic variables appear to be the most significant indicators of stress: intensity, pitch variation, vowel quality and vowel duration.

**Table 1.** Characteristics of stressed and unstressed syllables

	<b>Stressed</b>	<b>Unstressed</b>
1 Intensity	Articulation with greater breath/muscular effort Perceived as greater loudness	Less breath/muscular effort Perceived as having less loudness
2 Pitch	Marked change in pitch	Syllables tend to follow the pitch trend set by previous stressed syllable
3 Vowel quality	May contain any vowel (except /e/) Vowels have clear (peripheral) quality Diphthongs have clearly defined glide	Generally have central vowels /e x k/ or syllabic consonants Vowels may have centralized quality Diphthongs tend to have a much reduced glide
4 Vowel duration	Vowels have full length	Vowels are considerably shorter

Collins and Mees (2013, p.130)

Collins and Mees (2013) explain that many of the potential stress of words are lost in connected speech. So, in general, words which carry little information normally lose stress. These are the words important for the structure of the sentence, i.e. function words (articles, auxiliary verbs, verb be, prepositions, pronouns, conjunctions). Content words (nouns, main verbs, adjectives, most adverbs), which carry high information load, are normally stressed.

“I’ve heard that Jack and Jane spent their holidays in Jamaica.

F F    C    F    C    F    C    C    F    C    F    C

(C = content word, F = function word)” (p.135)

*Pause* is one of the prosodic features which accomplish the phonological and delimiting function in sentence level and its constituents. At the end of 60s, the pioneering figure of pausology Goldman-Eisler (1968) created pausological measurement conventions which can be done through detailed analysis of spectrographic printouts. Following them, various linguists have studied pause from different point of views. Vogel (1986) carried out a study on hesitation pauses. For him, pauses are used to show the limits of prosodic components such as phonological utterance and intonational phrases-elements which incorporate phonological, syntactical, semantic, and pragmatic messages that can be found in clauses and its parts; furthermore, they can be found in phrases or sentences. In this way, one can find whether there is hesitation through the predictability of relation between pause points and prosodic components. Later, Taylor and Black (1998) developed a formula to calculate students' correct pauses, which will be explained in data analysis.

From a descriptive point of view, pauses are divided into two categories in general use. The first one is physical and linguistic pauses which contain intra-segmental and inter-lexical pauses, the latter are psychological and psycholinguistic which include pauses in terms of their origin and function. As seen above, pauses have an important role in determining the speaker as fluent or not (Zellner, 1994).

When it comes to the relationship of stress and pause in reading aloud and speaking skills, Schwanenflugel et al (2004) claim that one should consider (a) perceived changes in pitch, (b) stress or loudness, (c) duration and pausing, because prosodic reading allow readers to chunk group of words into phrases and meaningful units in terms of syntactic structure of text . For them, age is an important factor to use both stress and pausing strategies appropriately. Namely, to read prosodically, age is a significant factor to understand and use prosodic features in spoken language, for instance; 8 year old children cannot perform prosodic *stress* patterns to convey meaning and to comprehend the difference between these sample sentences: Beth is already **at** the party and Beth is **already** at the party. Schwanenflugel et al (2004) also state that pauses may be effective through commas like Lesley came, she saw, and she conquered, but may not be effective for these sentences: Lesley wanted the one with the red, white, and blue sprinkles. Through these examples, it can be said that as written texts have longer sentences which tax short term memory, prosodic features must be abstracted by oral readers while reading aloud.

### 1.2. Research questions

This study tries to describe TSL learners' read speech and reveal their use of suprasegmental features, particularly the use of stress and pause. To this aim this study seeks to find answers to the following research questions:

1. To what extent are Arabic TSL learners successful in using primary word stress while reading aloud?
2. To what extent are Arabic TSL learners successful in using pause while reading aloud?

## 2. Method

Since the present study aims to describe TSL learners' use of stress and pause in their readspeech, a descriptive survey model was adopted. Karasar (1998, p. 77) defines descriptive survey model saying "current situation is tried to be described as it is in a descriptive survey model".

## *2.1. Sample / Participants*

The population of this study included TSL learners whose mother tongue is Arabic. The study group consisted of 34 (15 female, 19 male) Syrian students learning Turkish as a second language at a state university. The participants enrolled in Turkish courses at B2 level at TÖMER (Turkish Teaching Application and Research Center) during the 2014-2015 academic year. The learners voluntarily participated in the study and their age range was between 19 and 24. All the participants came to Turkey at the same time and they passed through each level (A1, A2, B1 and B2) in two different classes with same instructors.

## *2.2. Data collection procedures*

The data for the study were collected by having students read a text aloud. The text was chosen from a book prepared according to European language portfolio B2 level by Gazi University TÖMER (Kurt & Temur, 2013, p. 15). Students' voice recordings were used to determine their use of stress and pausing patterns while reading aloud. While selecting the appropriate text, three experts in teaching Turkish to foreigners were asked about the relevance of the text for the study. The experts reached a consensus that the text was appropriate for their levels. The text was comprised of six sentences. Before the application, to make them familiar with the text students were given some rehearsal time. Then they were asked to read the text loud and their voices were recorded in a sound-treated room.

## *2.3. Data analysis*

Students' voices, recorded by a digital voice recorder with a noise cut function, were analyzed using Praat and Cool Edit pro speech analysis software programs. Praat5.4.01 (2014) software was utilized to detect students' word stress, and then the stressed syllables were determined according to the data gathered by this software. The students' word stress placements were compared to the ones identified before by three qualified subject matter experts. Thus, the ratio of the students' correct word stress production was determined.

Students' voice recordings were analyzed by Cool Edit Pro software, a program which could also make various sound analyses, and the pauses done by students during reading were spotted. The places of necessary pauses during loud reading were ascertained by three experts, and students' pauses were determined accordingly.

All the voice recordings were not included in the data analysis process, the ones related to the research questions were analyzed. The analyses about pausing were limited to the following issues:

1. The number of pauses in the right place.
2. The number of missing pauses although it is necessary while reading.
3. The number of pauses in the wrong place or pause insertion.
4. Total number of incorrect pauses.

In the present study, the formula developed by Taylor and Black (1998) was used to calculate the ratio of the students' pauses. The formula is as follows:

1. The number of correct pauses =  $(B - I)/B \times 100\%$
2. The number of missing pauses =  $D/T \times 100\%$
3. The number of pause insertion =  $I/(N-T) \times 100\%$
4. Total number of incorrect pauses =  $I/B \times 100\%$

$$B = (\text{students' total number of pauses})$$

I= (the number of pause insertion)

D= (the number of missing pauses)

T= (the number of necessary pause)

N= (the number of total pauses that could be appropriate in the text).

### 3. Results

Table 2 below presents the correct places of primary stressed syllables and the frequencies of the students' stress placements.

**Table 2.** The frequencies of students' correct and incorrect stress placements for the first sentence of the text.

Word	Syllable1	Syllable2	Syllable3	Syllable4	Syllable5	Syllable6
insanla' <b>rin</b>	11,76	35,29	5,88	<b>47,06</b>		
yaşamla' <b>ri</b>	11,76	41,18	20,59	<b>26,47</b>		
süre' <b>since</b>	2,94	26,47	<b>14,71</b>	55,88		
ihti' <b>yac</b>	8,82	11,76	<b>76,47</b>			
duydukla' <b>ri</b>	11,76	41,18	0,00	<b>47,06</b>		
<b>'belki</b>	<b>17,65</b>	82,35				
sami' <b>mi</b>	5,88	47,06	<b>47,06</b>			
dosta' <b>ne</b>	11,76	41,18	<b>47,06</b>			
ilişki' <b>ler</b>	2,94	14,71	58,82	<b>23,53</b>		
<b>'iken</b>	<b>17,65</b>	82,35				
gi' <b>derek</b>	8,82	<b>38,24</b>	52,94			
menfaa' <b>te</b>	5,88	44,12	0,00	<b>50,00</b>		
dö' <b>nük</b>	8,82	<b>91,18</b>				
ilişki' <b>ler</b>	5,88	20,59	64,71	<b>8,82</b>		
için' <b>de</b>	8,82	23,53	<b>67,65</b>			
olmala' <b>ri</b>	14,71	26,47	5,88	<b>52,94</b>		
bire' <b>yi</b>	17,65	14,71	<b>67,65</b>			
top' <b>lum</b>	35,29	<b>64,71</b>				
için' <b>de</b>	8,82	17,65	<b>73,53</b>			
yalnızlı' <b>ğa</b>	11,76	23,53	2,94	<b>61,76</b>		
sürüklemek' <b>tedir</b>	11,76	44,12	8,82	11,76	<b>5,88</b>	17,65

When the table is examined it is seen that learners put the primary stress correctly for the words of the first sentence respectively as "insanların" 47.06%, "yaşamları" 26.47%, "süresince" 14.71%, "ihtiyaç" 76.47%, "duyukları" 47.06%, "belki" 17.65%, "samimi" 47.06%, "dostane" 47.06%, "ilişkiler" 23.53%, "iken" 17.65%, "giderek" 38.24%, "menfaate" 50%, "dönük" 91.18 %, "ilişkiler" 8.82%, "içinde" 67.65%, "olmaları" 52.94%, "bireyi" 67.65%, "toplum" 67.71, "içinde" 73.53%, "yalnızlığı" 61.67%, "sürüklemektedir" 5.88%.

As can be seen from Table 2, learners successfully put the primary stress on the words "dönük" (91.18%) and "içinde" (73.53% and 67.65%). However, they put the primary stress incorrectly on the words "sürüklemektedir" (5.88%), "süresince" (14.71%) and "belki" (17.65%). It was observed that

students' correct stress ratio was low in words whose primary stress is not on the final syllable such as *belki*, *iken*, *süreklemektedir*, *süresince* and so on. It can be said that because the word stress is generally put on the final syllable in Turkish, learners' overgeneralizations lead them to make mistakes while reading. The words "*ilişkiler*" and "*içinde*" took place twice in the sentence; however, the correct stress ratio for the first time for "*ilişkiler*" was 23.53%, it was 8.82% for the second time; the correct stress ratio for the first time for "*içinde*" was 67.65%, it was 73.53% for the second time. Many of the learners put stress on -ki syllable in "*ilişkiler*" (58.82% in the first and 64.71% in the second time it occurs). This can be explained by the nature of /k/ sound in -ki syllable because it is a voiceless plosive stop. The changes of the stress ratio for the word "*içinde*" can be accepted as normal when the dynamics of read speech are considered.

Table 3 shows the correct places of primary stressed syllables and the frequencies of the students' stress placements for the second sentence of the text.

**Table 3.** The frequencies of students' correct and incorrect stress placements for the second sentence of the text

Word	Syllable1	Syllable2	Syllable3	Syllable4	Syllable5
Çıkarla' <b>rn</b>	11,76	38,24	5,88	44,12	
plan' <b>da</b>	2,94	47,06	50,00		
oldu' <b>ğu</b>	20,59	32,35	47,06		
toplum' <b>da</b>	29,41	29,41	41,18		
ilişki' <b>ler</b>	2,94	23,53	38,24	35,29	
sev' <b>gi</b>	11,76	88,24			
say' <b>gi</b>	2,94	97,06			
yardımlaş' <b>ma</b>	2,94	14,71	14,71	67,65	
dayanış' <b>ma</b>	5,88	5,88	38,24	50,00	
'özveri	29,41	26,47	44,12		
gi' <b>bi</b>	17,65	82,35			
değerle' <b>re</b>	14,71	20,59	8,82	55,88	
de' <b>gil</b>	52,94	47,06			
konu' <b>su</b>	35,29	32,35	32,35		
çıkarla' <b>ra</b>	14,71	29,41	2,94	52,94	
daya' <b>lı</b>	17,65	0,00	82,35		
o' <b>larak</b>	11,76	29,41	58,82		
yürümek' <b>tedir</b>	0,00	20,59	55,88	8,82	14,71

When we examine the table we can see that learners put the primary stress correctly in the ratio as "*çıkarların*" 44.12%, "*planda*" 50.00%, "*olduğu*" 47.06%; "*toplumda*" 41.18%, "*ilişkiler*" 35.29%; "*sevgi*" 88.24%, "*saygı*" 97.06%, "*yardımlaşma*" 67.65%, "*dayanışma*" 50.00%, "*özveri*" 29.41%, "*gibi*" 82.35%, "*değerlere*" 55.88%, "*degil*" 47.06%, "*konusu*" 32.35%, "*çıkarlara*" 52.94%, "*dayalı*" 82.35%, "*olarak*" 29.41%, "*yürümektedir*" 8.82% .

When the above table is examined, it is seen that students successfully put the stress on the correct syllable in words "*saygı*" (97.06%), "*sevgi*" (88.24%) and "*dayalı*" (82.35%). These words have two or three open syllables and they have the primary stress on the final syllable as it is generally the case in Turkish. However, students made mistakes in words like "*yürümektedir*" (8.82%), "*özveri*" (29.41%) ve "*olarak*" (29.41%); their success rate was very low in these words. The reason for this

could be that these words have three or more syllables with stress on a different syllable other than the final one.

Table 4 presents the correct places of primary stressed syllables and the frequencies of the students' stress placements.

**Table 4.** The frequencies of students' correct and incorrect stress placements for the third sentence of the text

Word	Syllable1	Syllable2	Syllable3	Syllable4	Syllable5	Syllable6	Syllable 7
Bura' <u>dan</u>	0,00	41,18	58,82				
konu' <u>yu</u>	20,59	26,47	52,94				
şu' <u>na</u>	38,24	61,76					
bağlayabi' <u>lirim</u>	5,88	41,18	2,94	26,47	2,94	20,59	
beklentile' <u>rin</u>	23,53	14,71	29,41	0,00	35,29		
menfaatle' <u>rin</u>	17,65	35,29	8,82	5,88	29,41		
hâ' <u>kim</u>	11,76	88,24					
oldu' <u>ğu</u>	5,88	23,53	70,59				
ilişki' <u>ler</u>	8,82	20,59	44,12	26,47			
dünyasin' <u>da</u>	23,53	35,29	14,71	26,47			
in' <u>san</u>	26,47	73,53					
çevresindekile' <u>ri</u>	11,76	14,71	20,59	5,88	8,82	0,00	38,24
hu' <u>zur</u>	5,88	94,12					
başarısı' <u>nın</u>	5,88	11,76	23,53	0,00	58,82		
önün' <u>de</u>	2,94	11,76	85,29				
teh' <u>dit</u>	5,88	94,12					
o' <u>larak</u>	0,00	17,65	82,35				
algılayabi' <u>lir</u>	14,71	44,12	8,82	14,71	8,82	8,82	

When the table is examined it is seen that learners put the primary stress correctly for the words which formed the third sentence respectively as "buradan" 58.82%, "konuyu" 52.94%, "şuna" 61.76%, "bağlayabilirim" 2.94%, "beklentilerin" 35.29%, "menfaatlerin" 29.41%, "hâkim" 88.24%, "olduğu" 70.59%, "ilişkiler" 26.47%, "dünyasında" 26.47%, "insan" 73.53%, "çevresindekileri" 38.24%, "huzur" 94.12%, "başarısının" 58.82%, "önünde" 85.29%, "tehdit" 94.12%, "olarak" 17.65%, "algılayabilir" 8.82%.

For this sentence, learners successfully put the primary stress on the correct syllable in words "huzur" and "tehdit" (94.12%) and "önünde" (85.29%). This success might stem from their native language because these words, specifically "huzur" and "tehdit", were derived from Arabic. On the other hand, the learners put the primary stress on a wrong syllable in words "bağlayabilirim" (2.94%), "algılayabilir" (8.82%), "olarak" (% 17.65). Like in the previous sentences, these words have three or more syllables with stress on different syllable other than the final one. In other words, the longer the word, the more likely learners are to put the primary stress on the wrong place.

Table 5 illustrates the correct places of primary stressed syllables and the frequencies of the students' stress placements for the fourth sentence of the text.

**Table 5.** The frequencies of students' correct and incorrect stress placements for the fourth sentence of the text

Word	Syllable1	Syllable2	Syllable3	Syllable4	Syllable5	Syllable6
' <u>Böylelikle</u>	14,71	38,24	20,59	26,47		
ilişkilerin' <u>den</u>	2,94	8,82	23,53	0,00	5,88	58,82
endi' <u>se</u>	23,53	35,29	41,18			
du' <u>yarak</u>	23,53	11,76	64,71			
insanlar' <u>dan</u>	5,88	14,71	11,76	67,65		
uzaklaşabi' <u>lir</u>	5,88	32,35	17,65	29,41	0,00	14,71

It is clear from the table that learners' correct placement of the primary stress frequencies are 14.71% for “*böylelikle*”, 58.82% for “*ilişkilerinden*”, 41.18% for “*endişe*”, 11.76% for “*duyarak*”, 67.65% for “*insanlardan*”, 14.71% for “*uzaklaşabilir*”.

The most successfully stressed words for the fourth sentence were “*insanlardan*”(67.75%) and “*ilişkilerinden*”(58.82%). Although these words have more than three syllables, learners placed the correct stress on the right syllable. This can be explained by the nature of –den/-dan ablative suffixes since they are among stressed affixes. However, similar to the previous sentences, we can see that learners again had the most mistaken stress placement on the words with three or more syllables like “*duyarak*” (11.76%) and “*uzaklaşabilir*” (14.71%).

Table 6 demonstrates the correct places of primary stressed syllables and the frequencies of the students' stress placements.

**Table 6.** The frequencies of students' correct and incorrect stress placements for the fifth sentence of the text

Word	Syllable1	Syllable2	Syllable3	Syllable4	Syllable5	Syllable6
Yalnız' <u>lk</u>	11,76	20,59	67,65			
fer' <u>din</u>	23,53	76,47				
di' <u>ğer</u>	26,47	73,53				
insan' <u>larla</u>	11,76	26,47	2,94	58,82		
münasebe' <u>ti</u>	2,94	11,76	14,71	20,59	50,00	
sırasın' <u>da</u>	11,76	20,59	8,82	58,82		
yaşa' <u>nan</u>	11,76	17,65	70,59			
problemler' <u>den</u>	0,00	26,47	17,65	5,88	50,00	
kaynaklanmak' <u>tadır</u>	17,65	38,24	14,71	8,82	8,82	11,76

When it is examined, it is seen that learners put the primary stress correctly for the words which formed the fifth sentence as “*yalnızlık*” (67.65%), “*ferdin*” (76.47%), “*diğer*” 73.53%, “*insanlarla*” (2.94%), “*münasebeti*” (50.00%), “*sırasında*” (58.82%), “*yaşanan*” (70.59%), “*problemlerden*” (50.00%), “*kaynaklanmaktadır*” (8.82%).

It was observed that learners pronounced the words “*ferdin*” (76.47%), “*diğer*” (73.53%), and “*yalnızlık*” (67.65%) by placing the correct stress. On the other hand, they put the stress on the wrong syllables in the words “*insanlarla*” (2.94%) and “*kaynaklanmaktadır*” (8.82%). Along with the words in the four previous sentences, the correct stress rates are high in two or three syllable words having

primary stress on the final syllable. Nevertheless, the correct stress rates are too low in three or more syllable words having primary stress on syllables other than the final.

Table 7 shows the correct places of primary stressed syllables and the frequencies of the students' stress placements for the last sentence of the text.

**Table 7.** The frequencies of students' correct and incorrect stress placements for the sixth sentence of the text

Word	Syllable1	Syllable2	Syllable3	Syllable4	Syllable5	Syllable6
<u>i</u> se	61,76	38,24				
ço' <u>ğu</u>	23,53	76,47				
za' <u>man</u>	23,53	76,47				
anlaşı'l <u>amamak</u>	5,88	0,00	8,82	17,65	14,71	52,94
anla'y <u>amamaktan</u>	8,82	8,82	14,71	2,94	5,88	58,82
ile' <u>ri</u>	5,88	20,59	73,53			
gelmek' <u>tedir</u>	32,35	47,06	20,59	0,00		

When we examine the table we can see that learners put the primary stress correctly in the ratio "ise" (61.67%), "çoğu" (76.47%), "zaman" (76.47%), "anlaşılamamak" 17.65%, "anlayamamaktan" (14.71%), "ileri" (73.53%) and "gelmektedir" (20.59%).

As is clear from the table, learners put the primary stress more successfully in the words "çoğu" (76.47%), "zaman" (76.47%) and "ise" (61.76%). They were least successful with the words "anlaşılamamak" (17.65%) and "anlayamamak" (14.71%) in this sentence, because these words are the noun form of negative compound verbs, and this complex structure may lead learners to place the stress on the wrong syllable.

Table 8 below presents the frequency of average correct stress for each sentence.

**Table 8.** The frequency of average correct stress per sentence

Sentence number	Average correct stress (%)
1	45.10
2	52.29
3	54.90
4	34.80
5	50.98
6	48.74
Total average correct stress	47.80

As can be seen in Table 8, the general average correct stress placement score of the learners is 47.80%, which can be said to be low according to their proficiency levels. The reason for this could be the lack of training about the relation between the stress and meaning of a word. In addition to this, the framework for teaching Turkish as a foreign/second language does not contain a detailed syllabus for teaching suprasegmental features.

Table 9 shows the correct pause rates for each student.

**Table 9.** Correct pause rates for each student

Student number	Correct pause rate (%)	Student number	Correct pause rate (%)
1	16.67	18	53.33
2	60.87	19	41.46
3	50.00	20	36.36
4	44.00	21	35.00
5	56.00	22	29.79
6	44.00	23	28.57
7	50.00	24	32.56
8	38.46	25	31.11
9	32.65	26	41.18
10	65.38	27	31.25
11	42.86	28	32.00
12	31.58	29	35.00
13	51.85	30	38.64
14	45.16	31	38.46
15	37.14	32	32.65
16	35.14	33	32.35
17		34	38.24
Total average		39.69	

As it is shown, the highest correct pause rate was found to be 65.38% and the lowest correct pause was 16.67%, and total average rate was 39.69%.

Table 10 presents the missing pause rates for each student.

**Table 10.** Missing pause rates for each learner

Student number	Missing pause rate (%)	Student number	Missing pause rate (%)
1	83,33	18	22,22
2	22,22	19	5,56
3	55,56	20	11,11
4	38,89	21	22,22
5	22,22	22	22,22
6	38,89	23	22,22
7	16,67	24	22,22
8	16,67	25	22,22
9	11,11	26	22,22
10	5,56	27	16,67
11	16,67	28	11,11
12	0,00	29	22,22
13	22,22	30	5,56
14	22,22	31	16,67

15	27,78	32	11,11
16	27,78	33	38,89
17	11,11	34	27,78
Total average		22,39	

As is clear from the table, the highest missing pause rate was found to be 83.33% and the lowest missing pause was 0.00%, and total average rate was found as 22.39%.

The following table shows the pause insertion rates for each student.

**Table 11.** Pause insertion rates for each student

Student	Pause insertion rate (%)	Student	Pause insertion rate (%)
1	20,27	18	18,92
2	12,16	19	32,43
3	10,81	20	37,84
4	18,92	21	35,14
5	14,86	22	44,59
6	18,92	23	47,30
7	20,27	24	39,19
8	32,43	25	41,89
9	44,59	26	27,03
10	12,16	27	44,59
11	27,03	28	45,95
12	52,70	29	35,14
13	17,57	30	36,49
14	22,97	31	32,43
15	29,73	32	44,59
16	32,43	33	31,08
17	20,27	34	28,38
Total average		30,33	

As presented in Table 11, the highest rate was found as 52.70%; the lowest pause insertion rate was found as 10.81%. The total average pause insertion rate was found as 30.33%.

Total incorrect pause rates for each student are given in Table 12.

**Table 12.** Total incorrect pause rates for each student

Student	Incorrect pause rate (%)	Student	Incorrect pause rate (%)
1	83,33	18	46,67
2	39,13	19	58,54
3	50,00	20	63,64
4	56,00	21	65,00
5	44,00	22	70,21
6	56,00	23	71,43
7	50,00	24	67,44
8	61,54	25	68,89
9	67,35	26	58,82
10	34,62	27	68,75
11	57,14	28	68,00
12	68,42	29	65,00
13	48,15	30	61,36
14	54,84	31	61,54
15	62,86	32	67,35
16	64,86	33	67,65
17	48,39	34	61,76
Total average		59,96	

The highest total incorrect rate was found as 83.33% and the lowest as 34.62%. The total average incorrect rate for all pause categories was found as 59.96%.

#### 4. Discussion

One of the topics that both students and teachers have difficulties in teaching/learning Turkish as a foreign/second language is teaching/learning word or sentence stress in speaking and reading. In some languages like Arabic and French, stress is more explicit when compared to Turkish and it is claimed that the stress system in Turkish is not that clear (Dilaçar, 1964). Stress is more flexible in Turkish. It could be thought that this flexibility arises from having more vowels and soft consonants. Stress differences among syllables are not that many in Turkish. For this reason, differentiating or determining the stressed syllable is difficult. It could be determined by pronouncing each syllable separately (Dursunoğlu, 2006).

Inflectional or derivational suffixes can change either the part of speech or the meaning of the base. That is to say, the affix that determines the limits of the meaning or the class of a word is at the end; root, base and stem are some kind of signified, suffix is a kind of signifier (Börekçi, 2005). From this point of view, it could be said that our participants were more successful with the words having stressed syllable at the end, and the affixes that take the stress placed at the end. Findings shown in tables illustrate that participants' stress ratio are high with such words. Examples like "ihtiyaç (76.47%), dönük (91.18%), toplum (64.71%), sevgi (88.24%), saygı (97.06%), gibi (82.35%), hâkim (88.24%), insan (73.53%), huzur (94.12%), tehdit (94.12%) support this view.

Similarly, their correct stress placement ratio is also high with the words having affixes that take the stress on the syllable they are in. Cases of nouns like dative, accusative, nominative etc. could be shown as examples as in: bireyi (67.65%), içinde (73.53%), yalnızlığa (61.56%), konuyu (52.94%), şuna (61.76%), olduğu (70.59%), başarısının (58.82%), önünde (85.29%), ilişkilerinden (58.82%), insanlardan (67.65%), sırasında (58.82%).

To make it clear, it would be better to have a look at words with affixes that do not take the stress on the syllable they are in. The participants' correct placement of the stress rate is quite low in these words such as "süresince (14.71%), belki (17.65%), iken (17.65%), giderek (38.245), özveri (29.41%), olarak (29.41%), olarak (17.65%), duyarak (11.76%). When we examine stress placement for these words, we can see that students put stress generally on the final syllable "süresince (55.88%), belki (82.35%), iken (82.35%), giderek (52.94%), özveri (44.12%), olarak (58.82%), olarak (82.35%), duyarak (64.71%). At this point, we could say that learners overgeneralize words stress and put it on the final syllable.

Another problem that learners face in stress while learning Turkish is that it has multi-syllable word structures because of its agglutinative nature. Herein, examining learners' stress placements in words with three or more syllables would be beneficial. It can be seen from the tables that learners' success rate is decreasing in words with more than three syllables such as "insanların (11.76%; 35.29%; 5.88%; 47.06%), sürtüklemektedir (11.76%; 44.12%; 8.82%; 11.76%; 5.88%; 17.65%), dünyasında (23.53%; 35.29%; 14.71%; 26.47%), algılayabilir (14.71%; 44.12%; 8.82%; 14.71%; 8.82%; 8.82%)".

Specifically, when the number of syllable increases, the number of wrong stress placement also increases, and this can be associated with the difficulty of pronunciation of multi-syllabic words. In addition to this, when learners' incorrect pause rates were taken into consideration, it was observed that learners insert pauses before the words they had difficulty in stress placements. In his study, Demirci (2015) stated that after acquiring an inflected language, Syrian students had some pronunciation and reading problems while learning Turkish which is an agglutinative one. The more the affixes added to the word, the more syllables and sounds that word has; thus, Syrian students have difficulties with the pronunciation and stress placement in multi-syllable words.

High correct stress placement in the Arabic-origin words like huzur and tehdit (see table 5) could be connected with their native language, Arabic. The main factor is not having the same or similar stress placement system in both languages but the main important factor could be explained in a way that learners do not have difficulties in the pronunciation of those words because they are loanwords, actually from their own native language. Sezer (1981) explains what type of words has non-final stress in Turkish.

The average success rate for stress was found to be 47.80%. This ratio shows that students failed to put the primary stress on the correct syllable. The success rates found in similar studies reveal that foreign language teaching has some problems in teaching pronunciation. In their study, Demir and Güleç (2015) investigated the pronunciation of American students learning Turkish and they concluded that the students lack in pronunciation and stress of Turkish words and sentences. In addition to this, it could be claimed that students see reading aloud similar to speaking and this might cause anxiety and failure. Karçıç and Çetin (2015) also had similar findings.

Celebi (2014) carried out a study on making suprasegmental units visible for the correct pronunciation of homonymic words. His aim was to identify the difference of some homonymic words in Turkish in terms of suprasegmental units. According to his findings, he recommends foreigners practice different accents to develop their speaking skills through making the suprasegmental units visible in terms of accent, intonation, tune and pause.

Çerçi (2014), in his study, examined secondary school Turkish students' pronunciation, stress and intonations and found out that even Turkish students have difficulties in these subjects in their native language. As mentioned before, this finding also supports the idea that Turkish does not have certain stress system, and teaching this flexible stress system is one of the problematic issues in teaching Turkish. In another study, Çerçi (2015) studied a similar issue to reveal teachers' views on the assessment of speaking skills, and claimed that Turkish language teachers did not have the necessary competence to assess speaking skills because they lacked the knowledge of suprasegmental features and some other pedagogical skills.

## **5. Conclusions**

In our study, learners' average correct pause rates was 39.69%; their average missing pause rate was 22.39%; their pause insertion rate was 30.33% and their total number of incorrect pause rate was 59.96%. According to these results, it is clear that learners' success rate for pause is low and their total incorrect pause rate is high. This shows that learners pause in order to make reading or pronunciation easy for themselves; they do not take the features of Turkish into consideration. These results also reveal that they lack in fluent reading skills, interpretation of the text and the functions of the punctuations.

The findings of this present study reveal that there are some deficiencies in teaching pronunciation in teaching Turkish as a foreign language. Büyükkiz (2014) examined the thesis and dissertations on teaching Turkish as a foreign language and asserted that there are few studies related to teaching speaking or pronunciation. To conclude, it can be claimed that stress, intonation, pause and pronunciation should be integrated in teaching speaking. Kılıç (2013) states that awareness should be raised as to the necessity of making one's speech prosodically similar to that of the native speakers of the L2. To eliminate or overcome these problems the following suggestions could be considered:

1. Sources for teaching Turkish as a foreign language should include practical activities designed specifically for pronunciation.
2. Audio-visual materials should be used for pronunciation and speaking activities.
3. While teaching grammar, the relation between meaning and pronunciation (and also suprasegmental features) should be taught by functional grammar teaching instead of grammar based teaching.
4. Teachers should try to develop or adapt some specific activities to make their students competent in pronunciation and suprasegmentals.
5. Some studies should be carried on teaching IPA symbols and the use of teaching materials prepared with these symbols.
6. Dictionary of Turkish pronunciation for TSL/TFL learners should be prepared.
7. Various experimental studies applying different teaching techniques should be carried out.

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## Türkçeyi yabancılardırak öğrenen Arap öğrencilerin sesli okumalarının vurgu ve duraklama işaretlerinin incelemesi

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### **Öz**

Anlamın aktarılması sırasında önemli rol oynaması narağmen parçaları üstübirimlere yabancılarla Türkçe öğretimin de ihmaledil en konular dan biridir. Bu çalışma, yabancı dilolarak Türkçe öğrenen Arap öğrencilerin sesli okumalarını parçaları üstübirimlerden vurgu ve duraklama işaretlerinin incelemesi anbetimleme yiamışlamaktadır. Bu çerçevede Gaziantep Üniversitesi Türkçe Öğretim Merkezi (TÖMER)'de B2 seviyesinde öğrenim gören 34 Suriyeli öğrenciye Avrupa Birliği Dil Öğretim Portfolyosuna uygun olarak B2 seviyesindeki kitap setinden seçilen bir metin üzerinde sesli okuma yapmıştır. Öğrencilerin ses kayıtları Praat ve Cool Edit yazılımları kullanılarak çözümlenmiştir. Elde edilen ses kayıtları Praat ve Cool Edit yazılımları kullanılarak çözümlenmiştir. Öğrencilerin okumalarına ait vurgu ve duraklama işaretleri bazalınıp karşılaştırılmıştır. Öğrencilere

aitvurguveduraklarınıuzmanlarınbelirlediklerivurguveduraklardanistatistikselolarakanlamlısapmalargösterdiğibeli  
rlenmiştir.

*Anahtarsözcükler:* YabancıdilolarakTürkçeöğretimi; parçalarüstübirimler; vurgu; durak

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#### AUTHOR BIODATA

**SerdarDerman** holds a doctorate in Turkish Language Teaching from the Selçuk University, Konya,Turkey, and currently is an Assistant Professor at the Turkish Language Teaching Department, Faculty of Education, Gaziantep University, Gaziantep,Turkey

**Mehmet Bardakçı** has received his Ph.D. in English Language Teaching from Gazi University, Ankara, Turkey. He is currently a member of the teaching staff of the ELT Department, Faculty of Education, Gaziantep University. His interest areas are Applied Linguistics, English Language Teaching and Teacher Training.

**Mustafa SerkanÖztürk**has had his Ph.D. in English Language Teaching from Gazi University, Turkey. He is a teaching staff at NecmettinErbakan University, AhmetKeleşoğlu Faculty of Education. He conducts research on Teacher training, Teaching English to Young Learners, and Classroom Practices.